FIG. 1

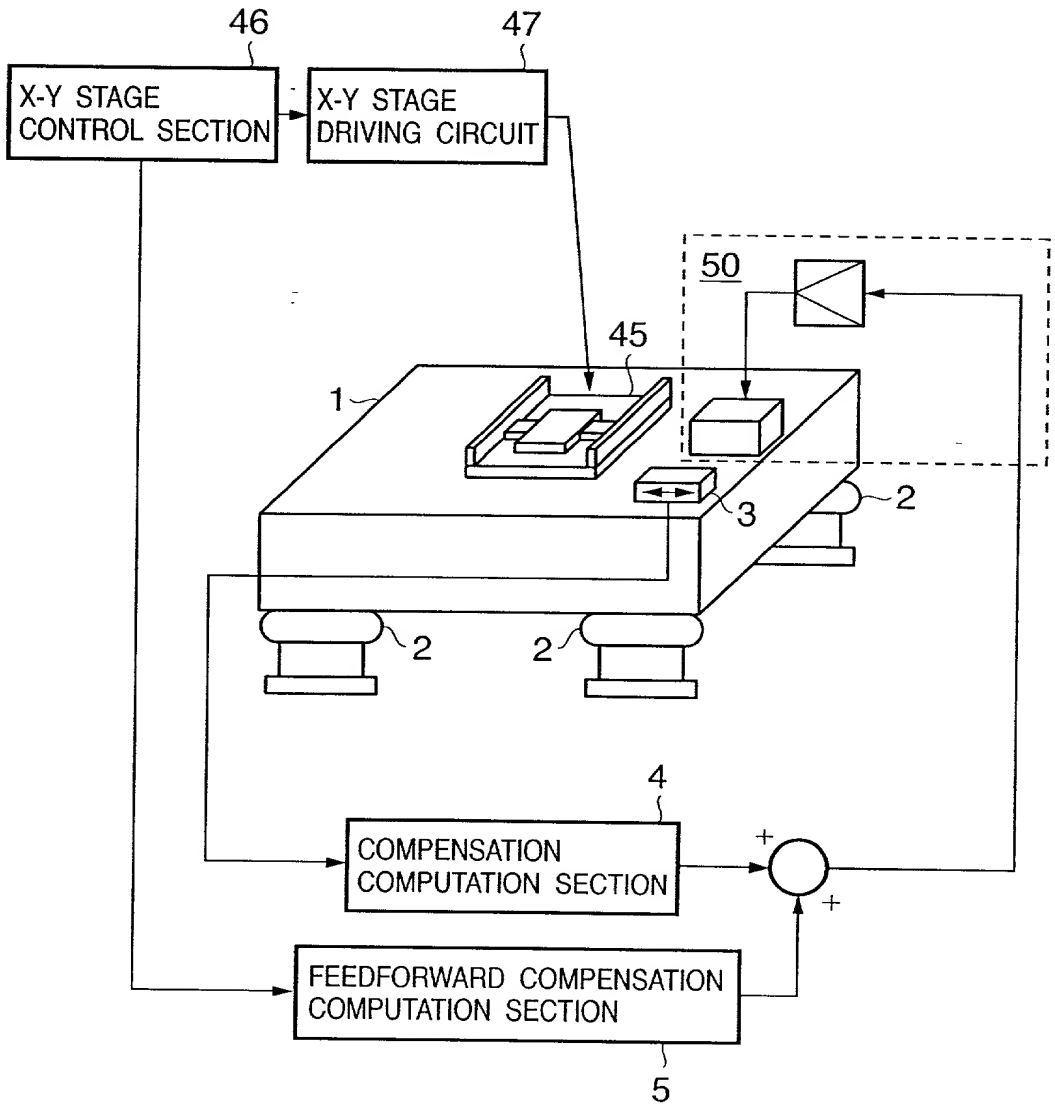

46
47
X-Y STAGE CONTROL SECTION
X-Y STAGE DRIVING CIRCUIT
50
45
1
3
2
2
2
4
COMPENSATION COMPUTATION SECTION
+
+
FEEDFORWARD COMPENSATION COMPUTATION SECTION
5

FIG. 2

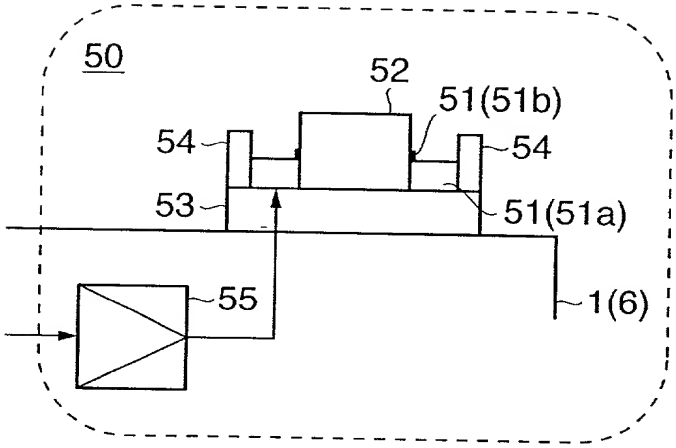


FIG. 3

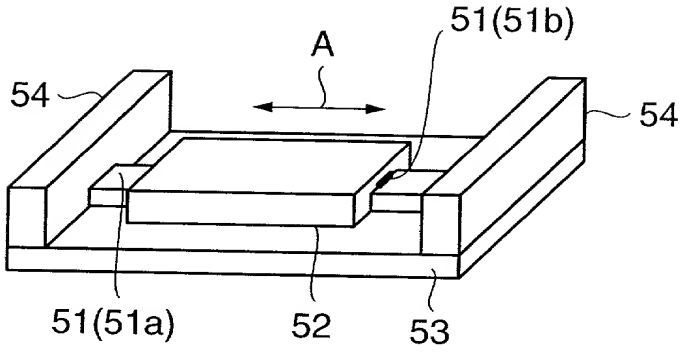


FIG. 4

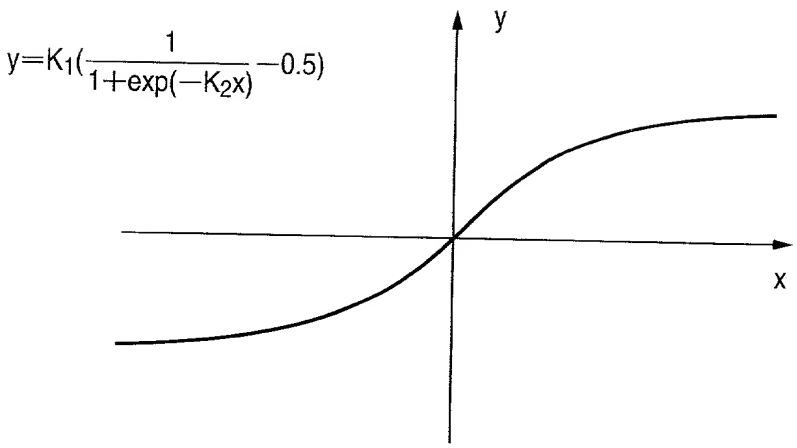


FIG. 5

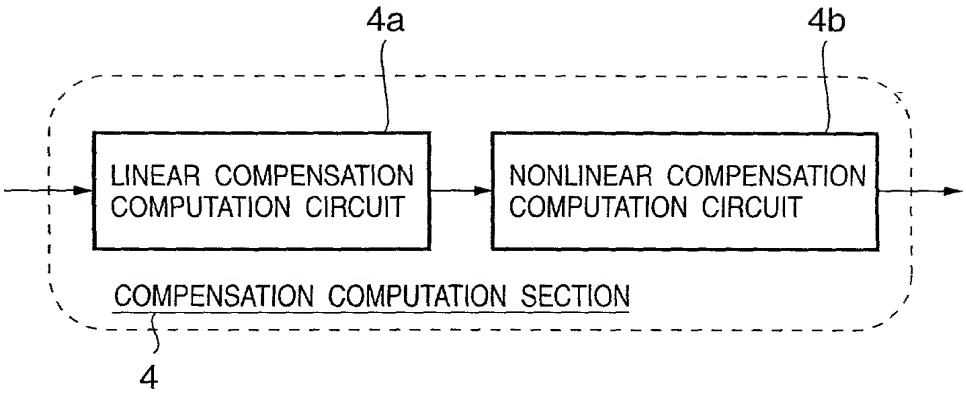

4a
4b
LINEAR COMPENSATION COMPUTATION CIRCUIT
NONLINEAR COMPENSATION COMPUTATION CIRCUIT
COMPENSATION COMPUTATION SECTION
4

FIG. 6

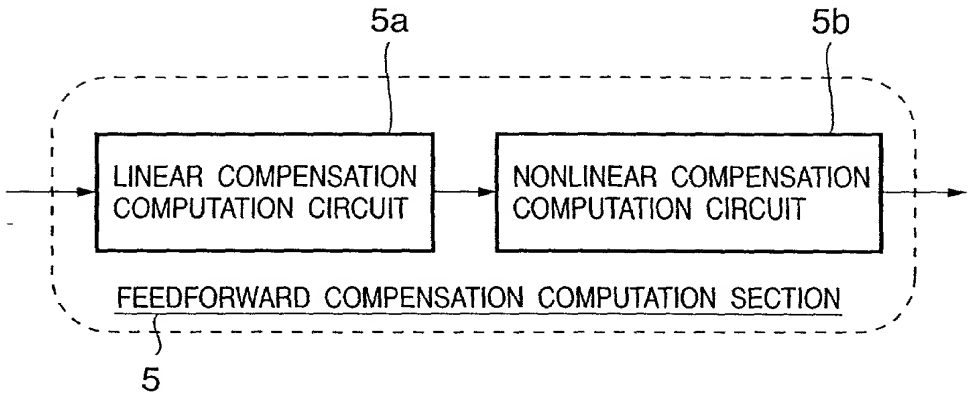

5a
5b
LINEAR COMPENSATION COMPUTATION CIRCUIT
NONLINEAR COMPENSATION COMPUTATION CIRCUIT
FEEDFORWARD COMPENSATION COMPUTATION SECTION
5

FIG. 7

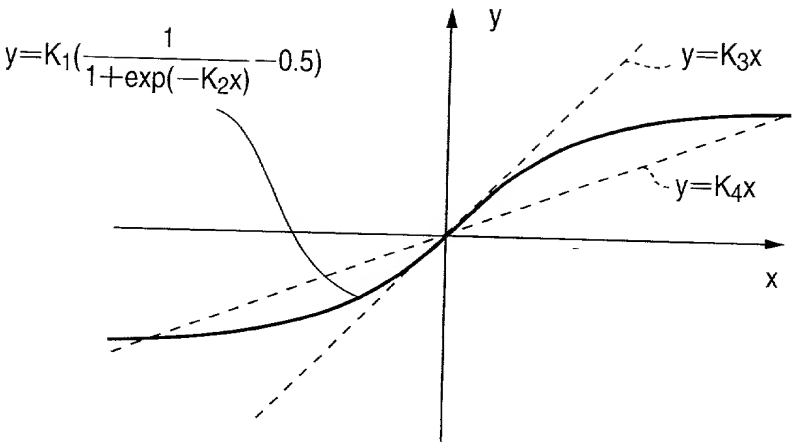


FIG. 8

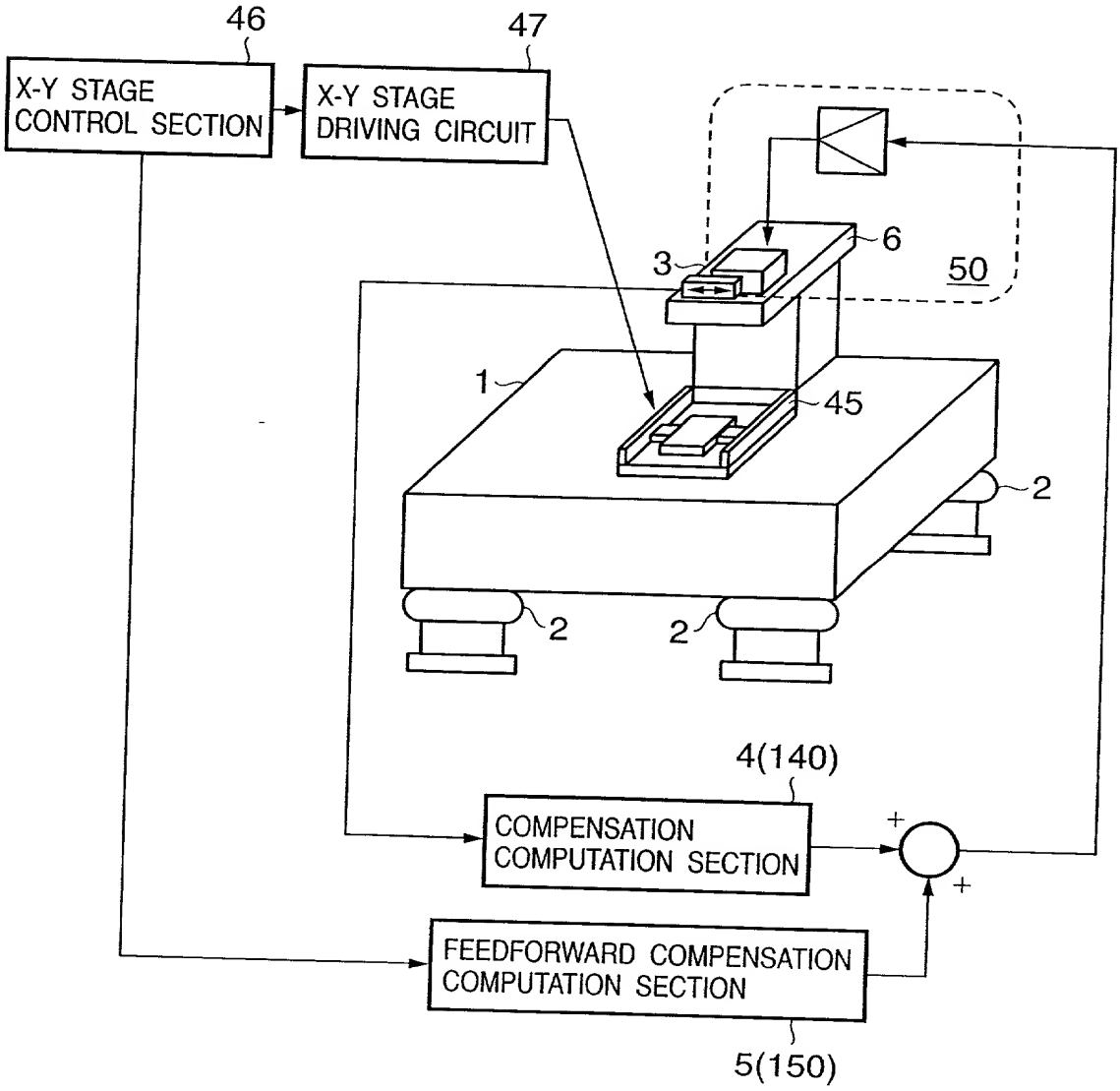

46
47
X-Y STAGE CONTROL SECTION
X-Y STAGE DRIVING CIRCUIT
6
3
50
1
45
2
2
2
4(140)
COMPENSATION COMPUTATION SECTION
+
+
FEEDFORWARD COMPENSATION COMPUTATION SECTION
5(150)

FIG. 9A

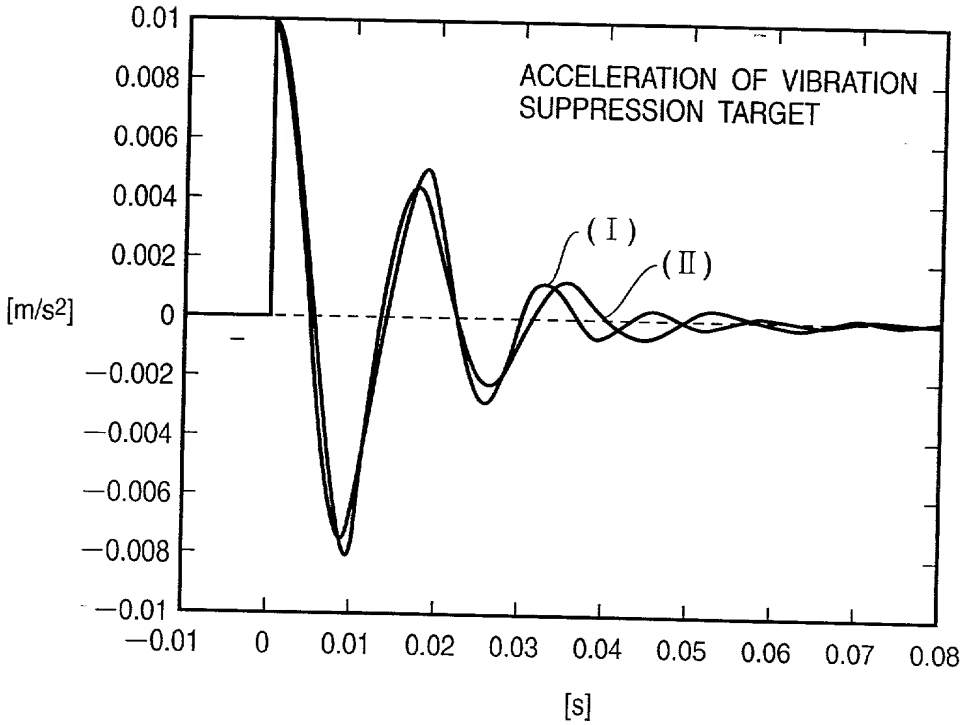

ACCELERATION OF VIBRATION SUPPRESSION TARGET
(I)
(II)
[m/s2]
0.01
0.008
0.006
0.004
0.002
0
−0.002
−0.004
−0.006
−0.008
−0.01
−0.01
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
[s]

FIG. 9B

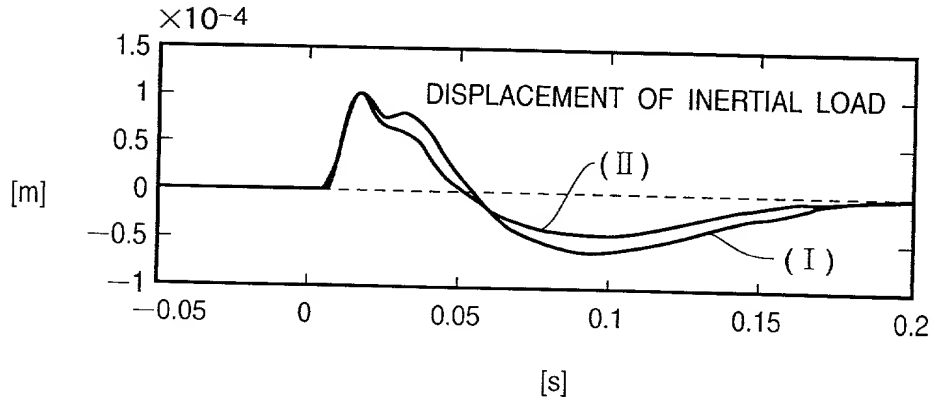

×10−4
DISPLACEMENT OF INERTIAL LOAD
(II)
(I)
[m]
1.5
1
0.5
0
−0.5
−1
−0.05
0
0.05
0.1
0.15
0.2
[s]

FIG. 10

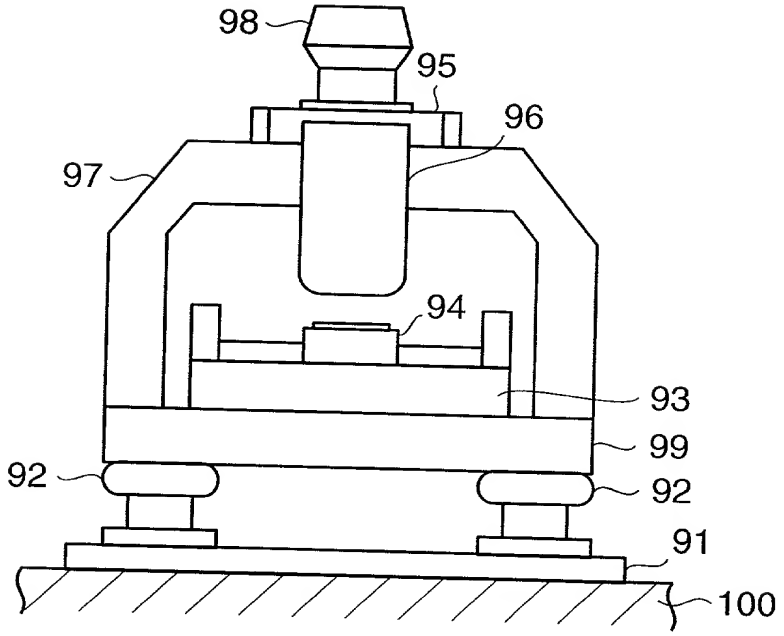


FIG. 11

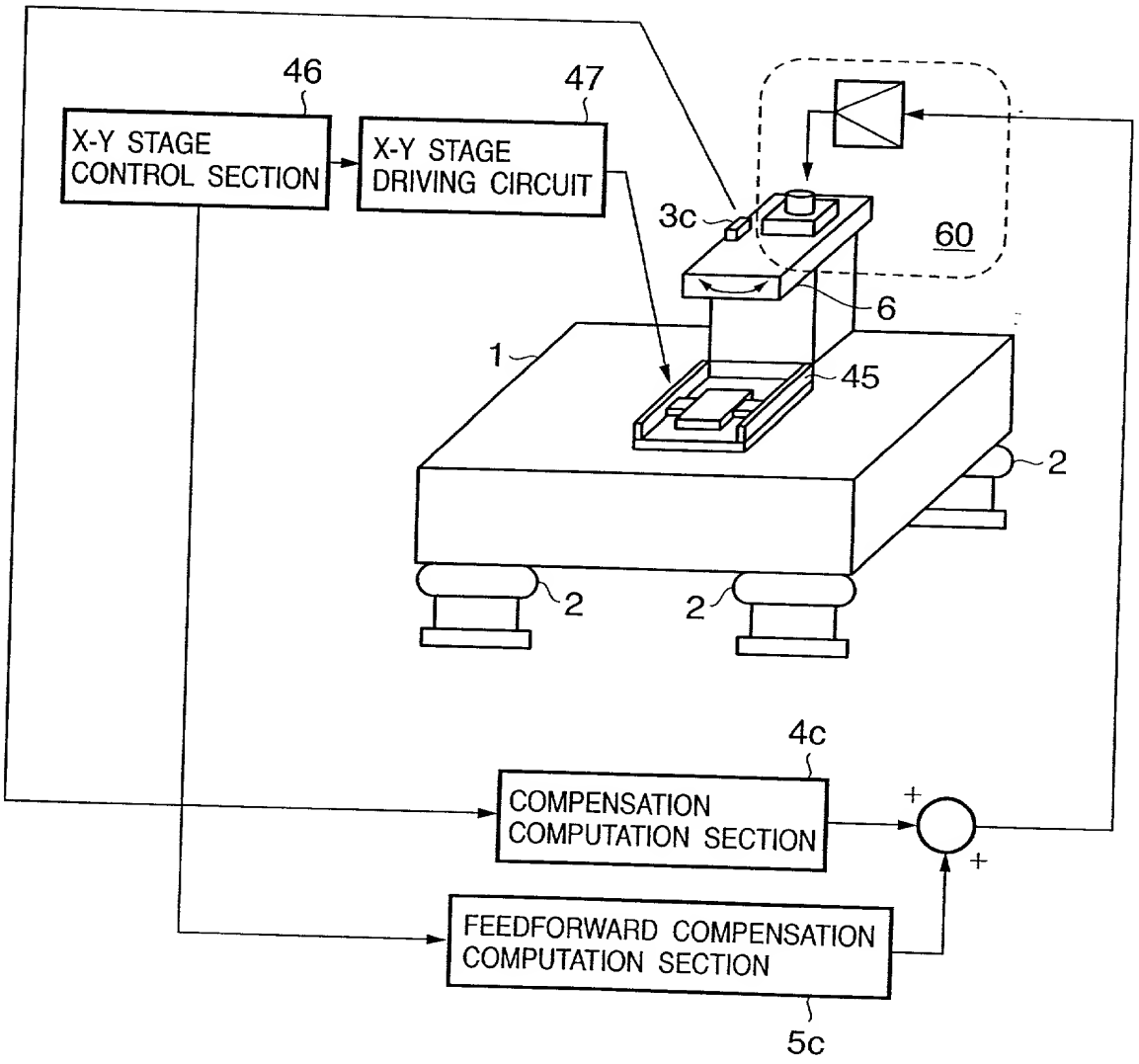

46
47
X-Y STAGE CONTROL SECTION
X-Y STAGE DRIVING CIRCUIT
3c
60
6
1
45
2
2
2
4c
COMPENSATION COMPUTATION SECTION
+
+
FEEDFORWARD COMPENSATION COMPUTATION SECTION
5c

FIG. 12

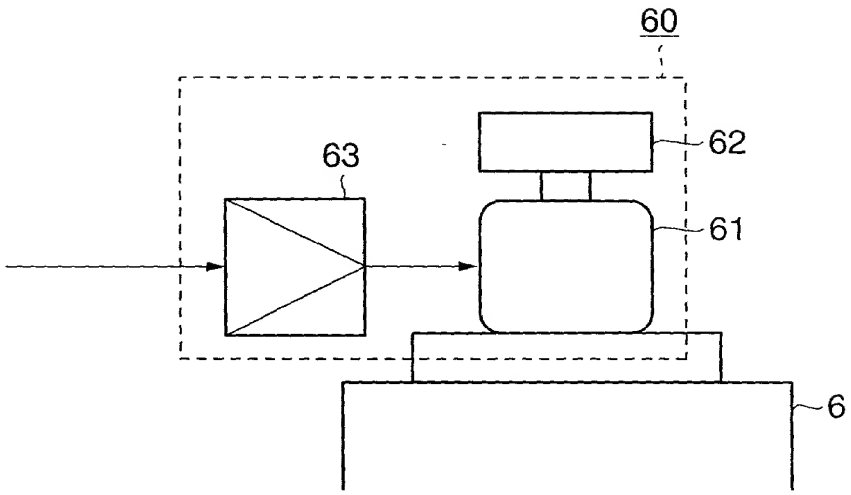


FIG. 13

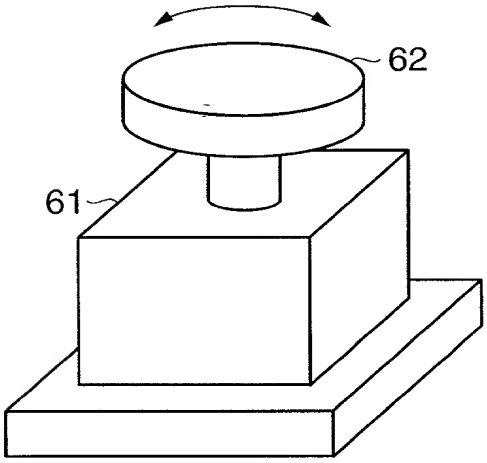


FIG. 14

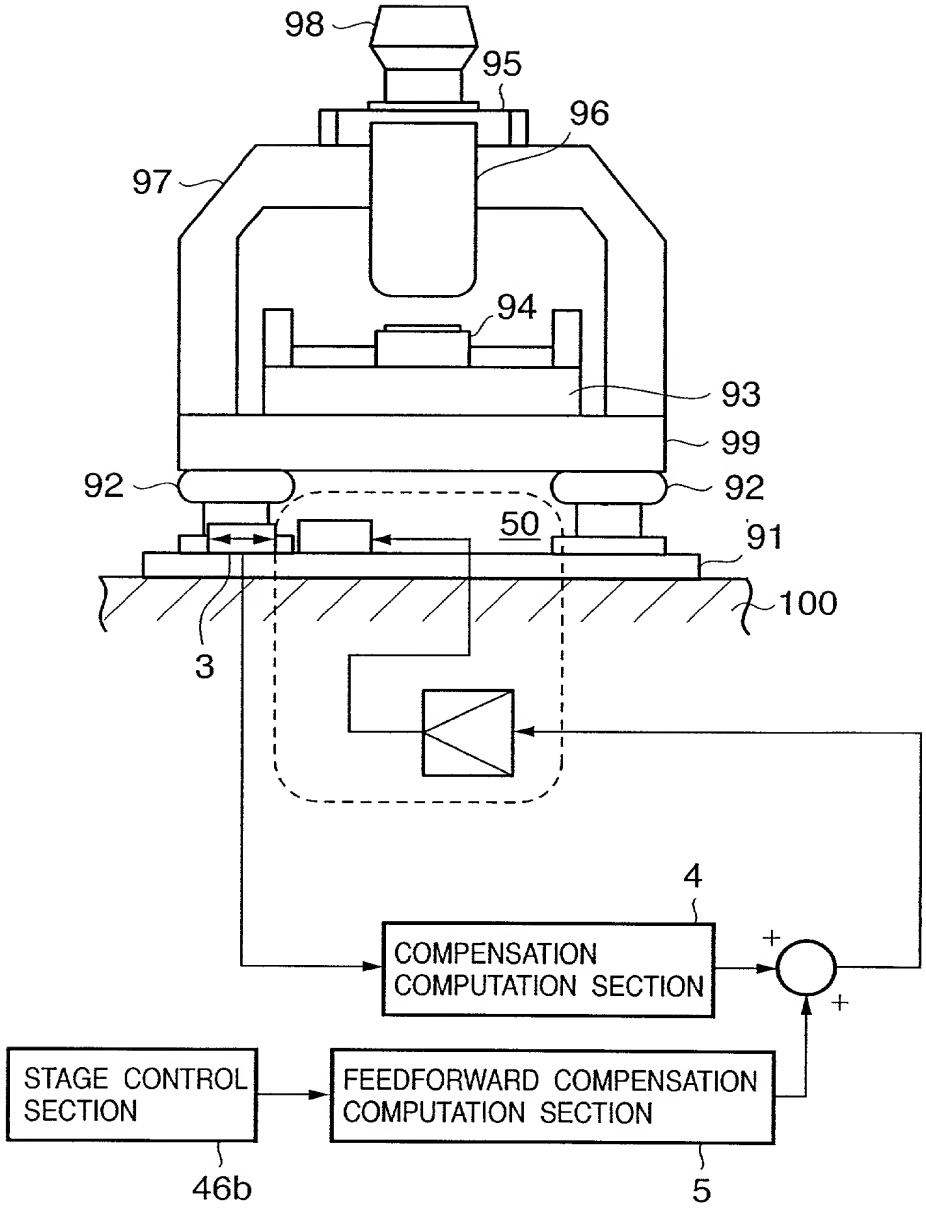

98
95
96
97
94
93
99
92
92
50
91
100
3
4
COMPENSATION COMPUTATION SECTION
+
+
STAGE CONTROL SECTION
FEEDFORWARD COMPENSATION COMPUTATION SECTION
46b
5

FIG. 15

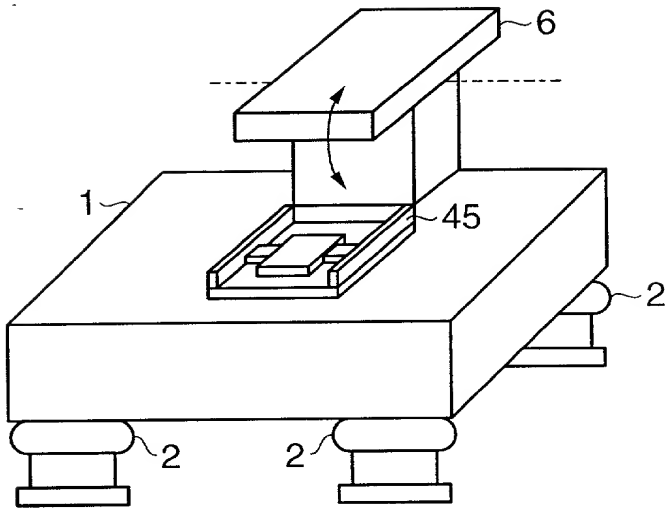


FIG. 16

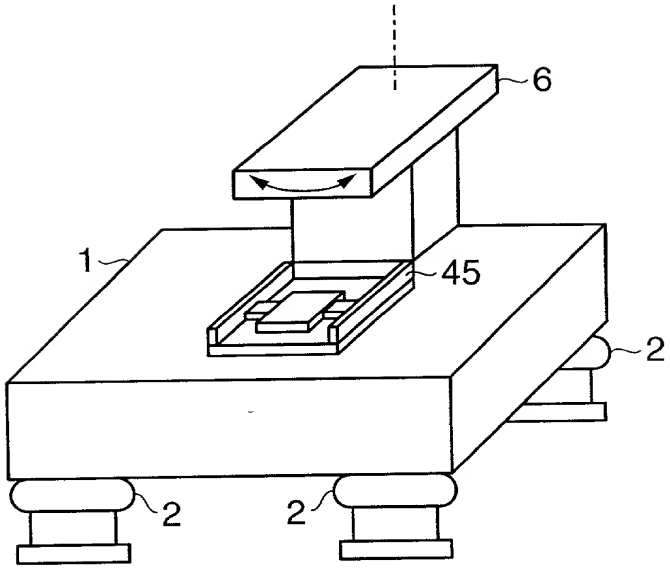


FIG. 17

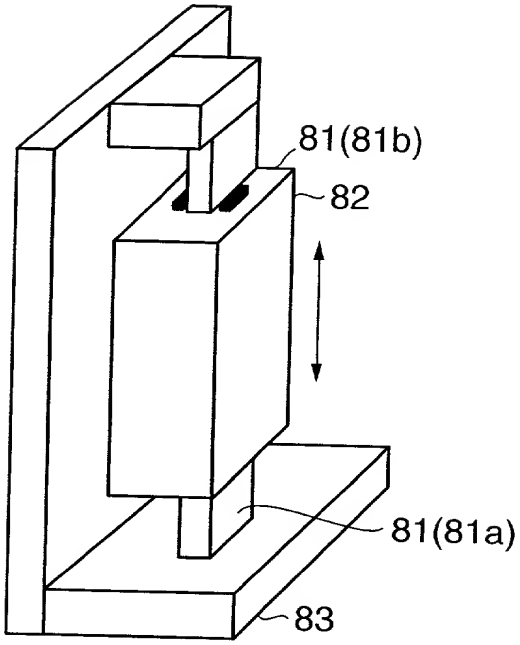


FIG. 18

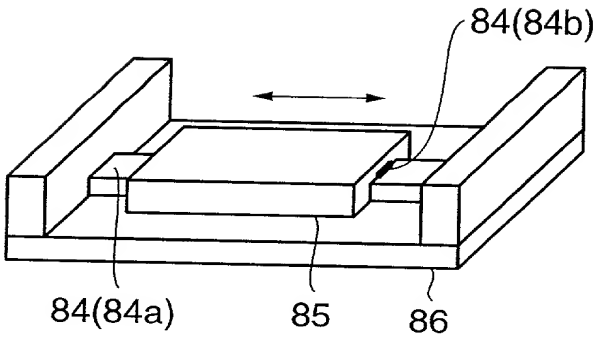


FIG. 19

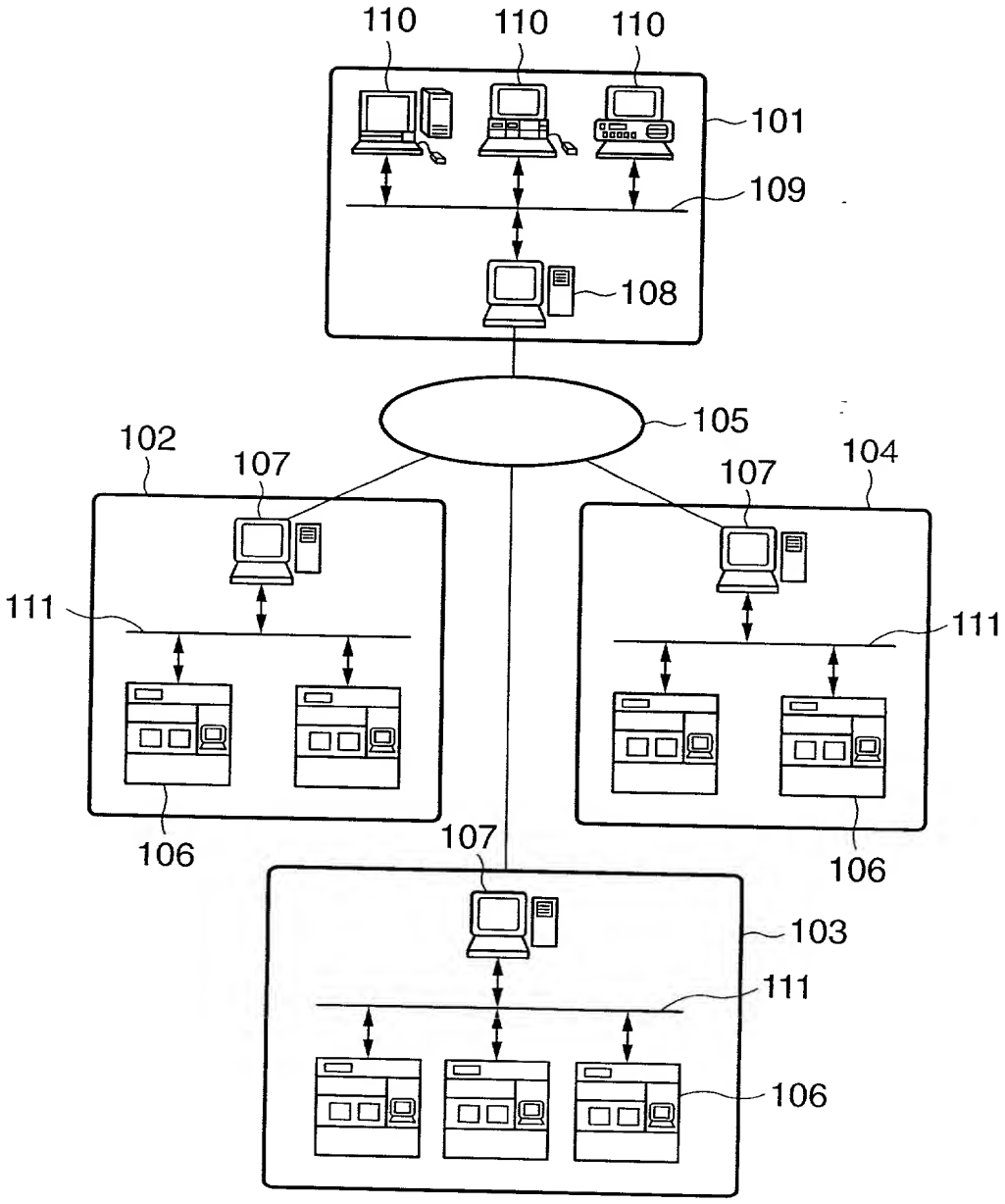

110
110
110
101
109
108
105
102
107
107
104
111
111
106
107
106
103
111
106

FIG. 20

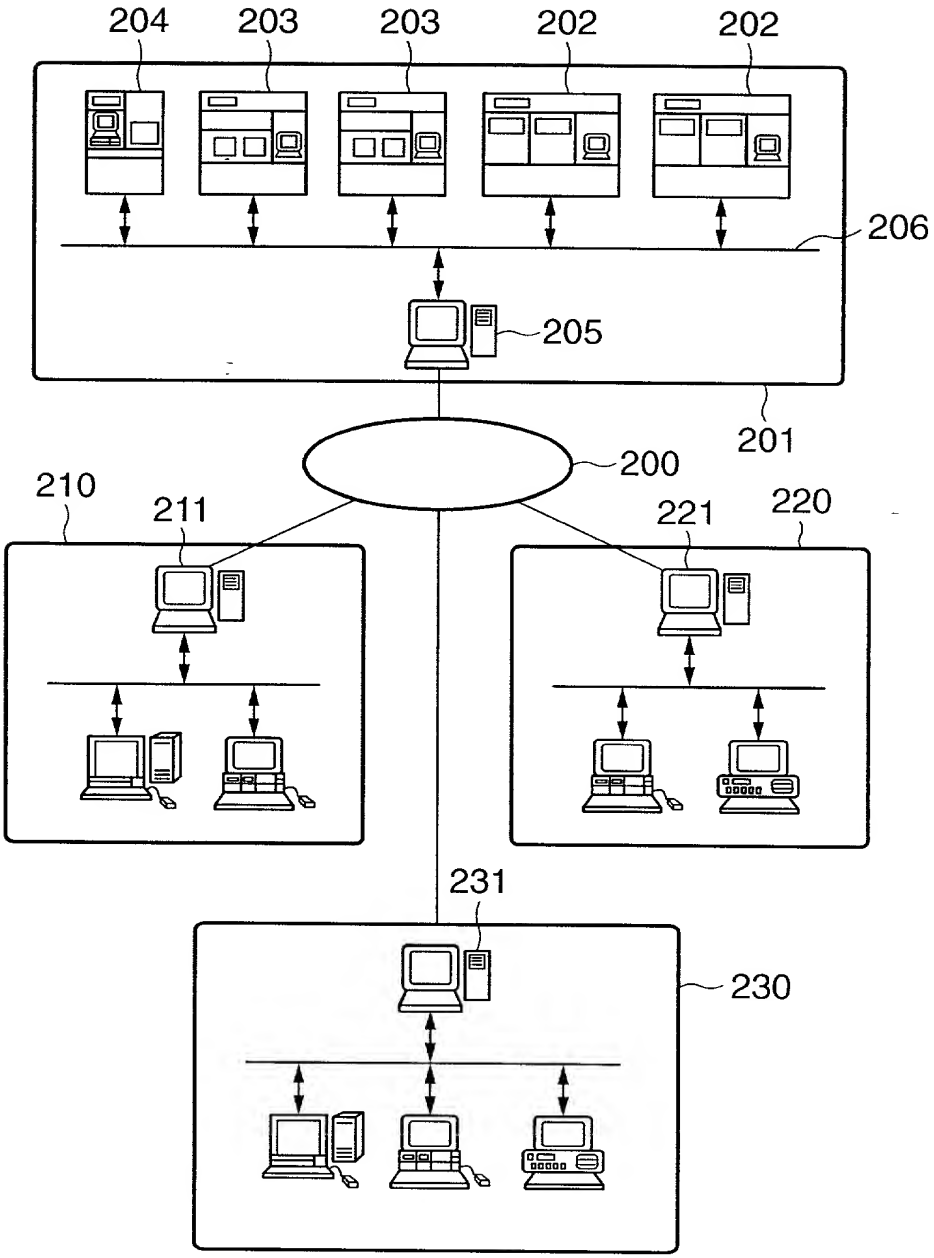


FIG. 21

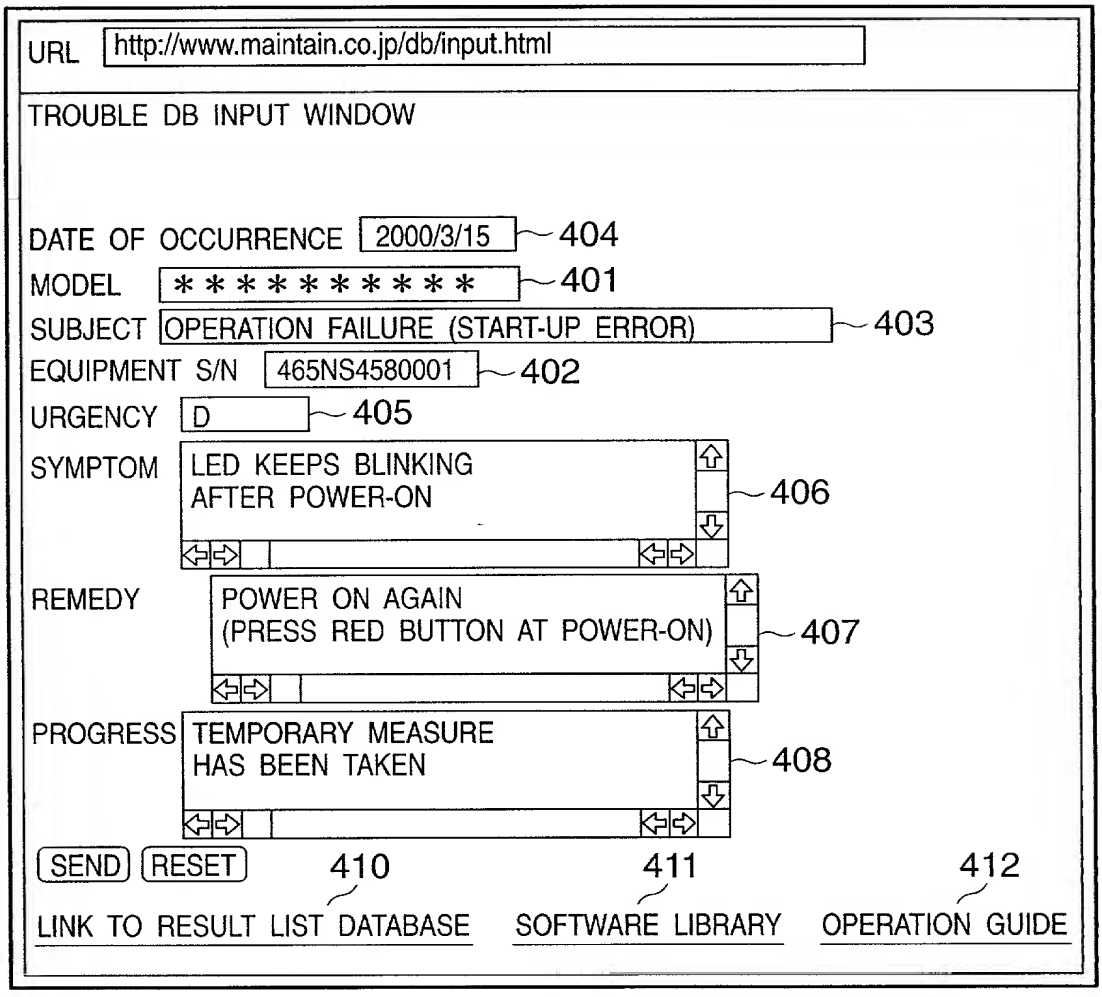
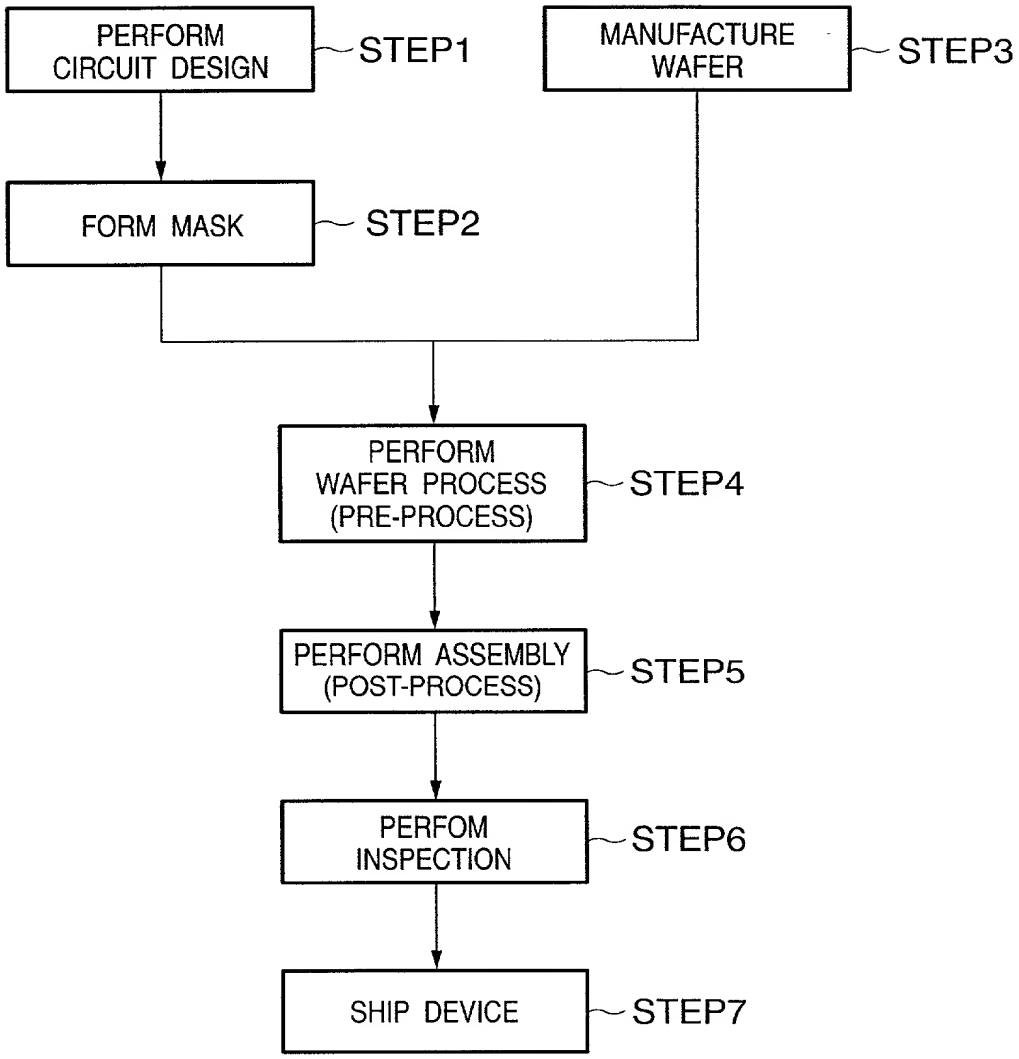
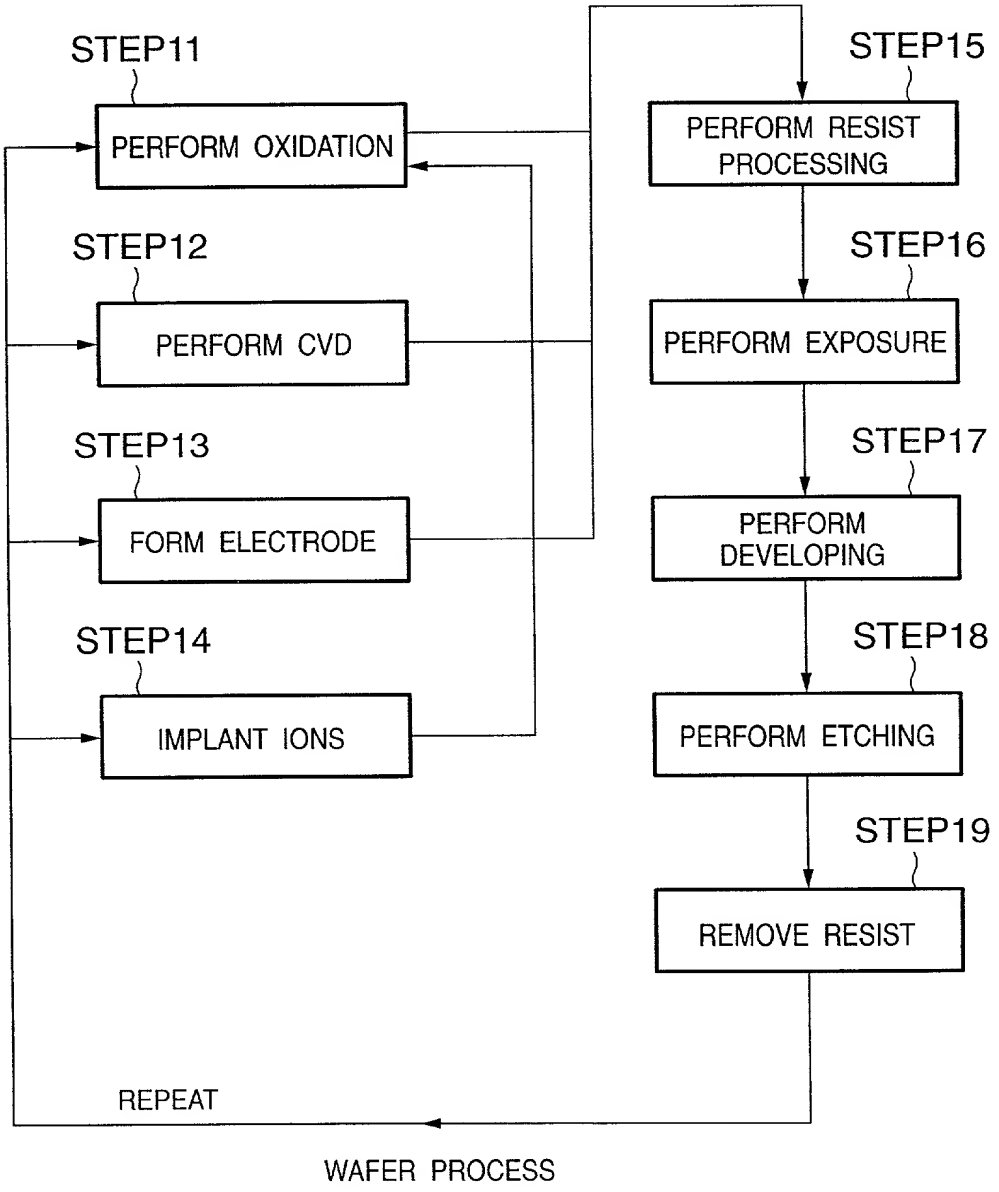

URL
http://www.maintain.co.jp/db/input.html
TROUBLE DB INPUT WINDOW
DATE OF OCCURRENCE
2000/3/15
404
MODEL
****
401
SUBJECT
OPERATION FAILURE (START-UP ERROR)
403
EQUIPMENT S/N
465NS4580001
402
URGENCY
D
405
SYMPTOM
LED KEEPS BLINKING
AFTER POWER-ON
406
REMEDY
POWER ON AGAIN
(PRESS RED BUTTON AT POWER-ON)
407
PROGRESS
TEMPORARY MEASURE
HAS BEEN TAKEN
408
SEND
RESET
410
411
412
LINK TO RESULT LIST DATABASE
SOFTWARE LIBRARY
OPERATION GUIDE

FIG. 22



FLOW CHART OF SEMICONDUCTOR DEVICE MANUFACTURING PROCESS

FIG. 23


STEP11
PERFORM OXIDATION
STEP12
PERFORM CVD
STEP13
FORM ELECTRODE
STEP14
IMPLANT IONS
STEP15
PERFORM RESIST PROCESSING
STEP16
PERFORM EXPOSURE
STEP17
PERFORM DEVELOPING
STEP18
PERFORM ETCHING
STEP19
REMOVE RESIST
REPEAT
WAFER PROCESS